

V. Claims

We claim:

1. A statistical record purge procedure comprising the improvement of ensuring there is adequate temporary memory for storing new statistical records before the procedure initiates deletion of older statistical records in permanent memory, the new statistical records comprising statistical records generated while the older statistical records are being deleted.
2. The procedure of claim 1 wherein the adequate temporary memory comprises ninety percent or more free memory space.
3. The procedure of claim 1 comprising the further improvement of waiting a predetermined period of time if there is inadequate temporary memory, and then repeating the procedure of claim 1.
4. The procedure of claim 1 wherein the predetermined period of time comprises approximately thirty seconds.
5. The procedure of claim 1 wherein the temporary memory space comprises a log space.
6. The procedure of claim 1 wherein the permanent memory utilizes indices or pointers and the indices or pointers are reset following the deletion of older statistical records.
7. The procedure of claim 1 wherein the deletion of older statistical records occurs less frequently than hourly but at least once daily.
8. A statistical record purge procedure comprising the improvement of scheduling deletion of older statistical records during a period when relatively few new statistical records are generated.

9. The procedure of claim 8 wherein the permanent memory utilizes indices or pointers and the indices or pointers are reset following the deletion of older statistical records.
10. The procedure of claim 8 wherein the deletion of older statistical records occurs less frequently than hourly but at least once daily.
11. An improved method of purging statistical records from a temporary memory in a service provider network, the improvement comprising:
- (A) ensuring there is adequate temporary memory for storing new statistical records before the procedure initiates deletion of older statistical records in permanent memory, the new statistical records comprising statistical records generated while the older statistical records are being deleted.
12. The method of claim 11 further comprising:
- (B) waiting a predetermined period of time if there is inadequate temporary memory; and
 - (C) repeating step (A).
13. The method of claim 12 wherein the predetermined period comprises approximately thirty seconds.
14. The method of claim 11 further comprising:
- (D) updating any indices or pointers utilized by the permanent memory following the deletion of older statistical records in the permanent memory.